

REMARKS

Favorable reconsideration of this application is respectfully requested in view of the amendments above and the following remarks. Claims 1-23 are pending in this application, of which claims 1, 19, 20 and 21 are independent. By virtue of the amendments above, claims 1, 19 and 20 have been amended and claims 21-23 have been added. No new matter has been introduced by way of the claim amendments or additions and entry thereof is therefore respectfully requested.

Applicants would like to point out that the first named inventor for this application should be Osamu S. Nakagawa, not Norman Chang.

Drawings

The Examiner indicated that Figures 1, 2A and 2B should be designated as --Prior Art--. Applicants have corrected the indicated Figures.

Specification

The Examiner objected to the disclosure because "Figure 2" (page 2, line 11) should be changed to "Figure 2A." Appropriate correction has been made.

Claims

The Examiner indicated that claims 17-18 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants thank the Examiner for the indication of allowability. However, Applicants believe that all of the pending claims are now allowable.

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Claims 1, 5-13 and 19-20 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S Patent No. 6,559,701 to Dillon (“Dillon”) in view of “A comparison of heuristic search algorithms for molecular docking,” by Westhead et al. (“Westhead”). Claims 2-4 and 14-16 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Dillon in view of Westhead, and further in view of Applicants Admitted Prior Art (“APA”). These rejections are respectfully traversed for at least the following reasons.

Claim Rejection Under 35 U.S.C. §103

The test for determining if a claim is rendered obvious by one or more references for purposes of a rejection under 35 U.S.C. § 103 is set forth in MPEP § 706.02(j):

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Therefore, if the above-identified criteria are not met, then the cited reference(s) fails to render obvious the claimed invention and, thus, the claimed invention is distinguishable over the cited reference(s).

The Official action sets forth a rejection of claims 1, 5-13 and 19-20 under 35 USC 103 (a) as being allegedly unpatentable over Dillon in view of Westhead. This rejection is traversed.

Dillon discloses “a method of reducing power rail transients on integrated circuits.” Abstract. Dillon discloses that the method includes shifting the phase of the clock to

latches/flip flops “in order to spread out the number of simultaneous switching elements.”

Abstract. Thus, Dillon does not disclose the invention recited in independent claims 1, 19 and 20. Specifically, Dillon does not disclose the steps of:

determining an initial set of delay values; and
executing an optimization algorithm, beginning with the initial set of delay values, to arrive at a set of delay values that at least approximately meet a criteria while satisfying timing constraints associated with selected pairs of logically connected clock sinks such that clock signals to clock sinks are synchronized, wherein the optimization algorithm comprises randomly modifying the set of delay values,

as recited in claim 1, for example.

As described above, Dillon’s “method provides that the phase of the clock to latches/flip flops is shifted in order to spread out the number of simultaneous switching elements.” Col. 1, lines 59-61 (emphasis added). Thus, Dillon’s method results in the clocks to the latches/flip flops not being synchronized since the phase of the clock is shifted to spread out the number of switching elements. Therefore, Dillon teaches away from “executing an optimization algorithm, beginning with the initial set of delay values, to arrive at a set of delay values that at least approximately meet a criteria while satisfying timing constraints associated with selected pairs of logically connected clock sinks such that clock signals to clock sinks are synchronized,” as recited in each of claims 1 and 20 (emphasis added).

Dillon also does not teach or suggest “a plurality of clock delay elements connected to the clock sinks, each clock delay element having a delay value, wherein the delay values are set according to a method comprising a step of determining initial values for the delay values and a step of executing an optimization algorithm, beginning with the initial set of delay values, to arrive at a set of delay values that at least approximately meet a criteria while

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satisfying timing constraints associated with selected pairs of logically connected clock sinks such that clock signals to clock sinks are synchronized,” as recited in claim 19.

Westhead discloses “four heuristic search algorithms” and “a random search procedure for flexible molecular docking.” Abstract. Thus, Westhead does not teach or suggest clock signals to clock sinks being synchronized. Therefore, any alleged combination of Dillon and Westhead would not result in the subject matter as claimed in claims 1, 19 and 20 or their dependent claims 5-13.

The Examiner rejected claims 2-4 and 14-16 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Dillon in view of Westhead, and further in view of Applicants Admitted Prior Art (“AAPA”). These rejections are respectfully traversed for at least the following reasons.

As discussed above, any alleged combination of Dillon and Westhead would not result in the subject claimed in independent claim 1. Applicants would like to point out that Applicants’ specification is not Applicants Admitted Prior Art. More specifically, the passages cited by the Examiner are part of Applicants’ “Detailed Description,” and thus, not prior art.

Further, claims 2-4 and 14-16 are dependent on claim 1. Since Applicants’ specification can not be used to reject claims 2-4 and 14-16, and since Applicants believe claim 1 is allowable over any alleged combination of Dillon and Westhead, claims 2-4 and 14-16 are also believed to be allowable over Dillon and Westhead.

Newly Added Claims

Claims 21-23 have been added, and include features not taught or suggested by the prior art, and thus these claims are also believed to be allowable. In particular, independent

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claim 21 recites features similar to claim 1. Independent claim 21 recites “means for executing an optimization algorithm, beginning with the initial set of delay values, to arrive at a set of delay values that at least approximately meet a criteria while satisfying timing constraints associated with selected pairs of logically connected clock sinks such that clock signals to clock sinks are synchronized.” These features are not taught or suggested by the prior art as discussed above. Claims 22-23 are dependent upon claim 21. Therefore, the Examiner is respectfully requested to allow claims 21-23.

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Conclusion

In light of the foregoing, withdrawal of the rejections of record and allowance of this application are earnestly solicited.

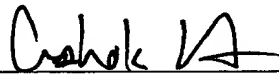
Should the Examiner believe that a telephone conference with the undersigned would assist in resolving any issues pertaining to the allowability of the above-identified application, please contact the undersigned at the telephone number listed below. Please grant any required extensions of time and charge any fees due in connection with this request to deposit account no. 08-2025.

Respectfully submitted,

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Dated: November 15, 2004

By



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